

## Lee Lake (19-0029) City of Lakeville

Lee Lake is located in Lakeville (Dakota County). The lake has a surface area of 25 acres with a maximum depth of 5.2 m (17 ft). The lake is landlocked with no natural outlet.

An abundance of submerged aquatic vegetation (Curlyleaf pondweed) has been a continuing problem in the lake. Not only is it an aesthetic and recreational problem, but the decaying of plants in late-summer adds to concentrations of phosphorus in the water column.

Barley straw has been added to this lake in the past to study the potential inhibition of algal populations within the lake (McComas and Stuckert 2009a).

On each sampling day the lake was monitored for total phosphorus (TP), chlorophyll-a (CLA), total kjeldahl nitrogen (TKN), and secchi transparency, as well as the lake's perceived physical condition and recreational suitability. The resulting data are summarized in tables and figures on the following page.

### 2009 summer (May-September) data summary

<i>Parameter</i>	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Grade</i>
<b>TP</b> (µg/l)	18.8	12.0	28.0	A
<b>CLA</b> (µg/l)	4.3	1.0	8.9	A
<b>Secchi</b> (m)	3.6	1.7	5.1	A
<b>TKN</b> (mg/l)	0.72	0.56	1.10	
<b>Lake Grade</b>				A

The lake received a lake grade of A for 2009, including A grades for each of the 3 water quality parameters. The year 2009 saw the best water quality in its historical water quality database.

Throughout the monitoring period, the volunteer's opinions of the lake's physical condition and recreational suitability were ranked on a 1-to-5 scale. These user perception rankings are shown on the following page.

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 259-5831 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or [brian.johnson@metc.state.mn.us](mailto:brian.johnson@metc.state.mn.us).

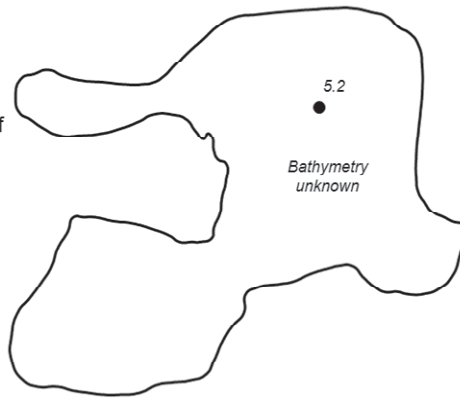
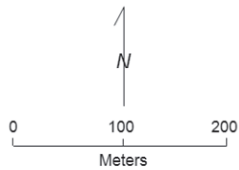
# Lee Lake Lakeville, Dakota Co.

Lake ID: 190029-00

WMO: Black Dog

Volunteers: Lakeville City Staff

● Sampling site  
Contours in meters



## 2009 Data

DATE	Surf Temp (°C)	Bot Temp (°C)	Surf DO (mg/L)	Bot DO (mg/L)	CLA (µg/L)	Surf TP (µg/L)	Bot TP (µg/L)	Secchi (m)	PC	RS
4/13	11.4				12	63		1.9	2	1
5/1	14				8.3	28		1.7	2	2
5/11	16				2.8	24		3.2	2	1
5/29	20					13		5.0	1	1
6/11	18.9				4.7	17		2.8	2	2
6/26	27				1.4	13		5.1	1	1
7/10	25				2.8	13			1	1
7/22	23.5				4.4	16		4.3	2	1
8/4	24				3.9	12		3.9	2	1
8/14	28.5				4.5	19		3.2	2	1
8/31	23				3.6	19		3.1	2	1
9/17	24				5.2	24		4.1	2	1
9/29	18.7				8.9	27		3.6	2	1
10/19	7.9				14	26		3.3	2	1

## Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Phosphorus												
Chlorophyll a												
Secchi Depth												
Lake Grade												

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Phosphorus			C	C	C	C			D	C	C	C
Chlorophyll a			C	B	B	B			C	B	B	C
Secchi Depth			C	C	C	C			D	C	C	C
Lake Grade			C	C	C	C			D	C	C	C

Year	2004	2005	2006	2007	2008	2009
Total Phosphorus	C	D	D	C	C	A
Chlorophyll a	C	B	B	C	B	A
Secchi Depth	D	C	C	C	C	A
Lake Grade	C	C	C	C	C	A

Source: Metropolitan Council and STORET data

